DIGITAL COAST IN ACTION:
INFORMING PLACE-BASED COASTAL MANAGEMENT

Understanding that data alone is not enough, NOAA developed the Digital Coast, a website that provides not only the data but also the tools, training, and information coastal communities need to turn these data into useful information.

What makes this website unique is the customer focus interwoven into every aspect of the effort. The Digital Coast Partnership Group is made up of representatives from the website's primary user groups, including the National Association of Counties, The Nature Conservancy, and the American Planning Association. These partners work together to ensure that the content is relevant for all intended users.

The Digital Coast Partnership Group is also working together to pool resources and talent to address various coastal management issues and bring the right information from NOAA and beyond to make the Digital Coast more robust. For many of these groups, it is the first time they have worked together on these pressing coastal issues, and the efficiencies and effectiveness they have experienced thus far ensure the continuation and growth of this initiative.

Some examples of the Digital Coast in Action include the following:

Mapping the Urban Realm to Enhance Community Resilience in Hawaii

www.csc.noaa.gov/digitalcoast/action/urban-realm.html

The State of Hawaii used high-resolution land cover data to identify high-priority urban forests, which enhance the health of coastal ecosystems and the resilience of coastal communities. The data contributed to the 2010 *Hawaii Statewide Assessment of Forest Conditions and Resource Strategy* and is being used to develop a set of long-term management activities and environmental literacy initiatives.

Using Lidar to Plan for Sea Level Rise in Oregon

www.csc.noaa.gov/digitalcoast/action/oregon-dikes.html

The Oregon Coastal Management Program, in partnership with the NOAA Coastal Services Center, used Digital Coast data to create a geospatial inventory of dikes and levees in Oregon's major estuaries. The inventory is being used to prioritize wetland restoration projects and predict changes to marshes and the coast under various sea level rise scenarios.

Exploring Water Level Scenarios to Inform Shoreline Management on Lake Ontario

www.csc.noaa.gov/digitalcoast/action/waterlevels.html

The Nature Conservancy is using visualizations to help the public and regulators understand the effects of low- and high-water years on Lake Ontario. The visualizations, created by the NOAA Coastal Services Center using Digital Coast data and tools, allow regulators to make more informed decisions about siting infrastructure and issuing permits while still protecting habitat and shoreline processes.

Conserving Habitat for the New England Cottontail in Coastal Maine

www.csc.noaa.gov/digitalcoast/action/cottontail.html

Coastal managers in Maine used Digital Coast data and tools to identify suitable habitat for the endangered New England cottontail. The results were used to determine areas that should be monitored during winter months and potentially conserved for the long-term management of this critical species.

Visualizing the Impacts of Sea Level Rise in Delaware

www.csc.noaa.gov/digitalcoast/action/slr-delaware.html

The Delaware Department of Natural Resources used high-resolution elevation data to generate maps showing the possible impacts of inundation using three different sea level rise scenarios. The maps formed the basis of a sea level rise adaptation policy that is guiding development decisions in Delaware's coastal zone.

Using Spatial Data and Web Mapping Tools to Support Wind Energy Planning off the North Carolina Coast

www.csc.noaa.gov/digitalcoast/action/wind-nc.html

The North Carolina Wind Energy Task Force used the Multipurpose Marine Cadastre to discuss the designation of wind energy areas in federal waters off the North Carolina coast. This data viewer provides a dynamic way to visualize data that is much more effective than using static maps, allowing task force members to quickly and accurately identify areas that may be incompatible with wind farm construction.

Identifying Sources of Pollution That Impact Coral Reef Communities in the Virgin Islands

www.csc.noaa.gov/digitalcoast/action/coralreef-vi.html

The U.S. Environmental Protection Agency used high-resolution land cover data and coral survey data to explore the relationship between human land-use activity and coral reef condition in the watersheds of St. Croix. Identifying watersheds where human activities and modifications to the landscape contribute to reef decline allows resource managers to better protect and restore coral reef ecosystems.

Illustrating the Importance of Critical Infrastructure Data for Louisiana Coastal Parishes

www.csc.noaa.gov/digitalcoast/action/criticalnola.html

The Louisiana Geographic Information Center (LAGIC) used the Coastal County Snapshots – Flood Exposure tool to assess critical facilities data for Louisiana's coastal parishes and identify those structures located within the flood zone. In partnership with the U.S. Geological Survey, LAGIC created maps to provide a more accurate look at the critical facilities in the area to help parish officials better plan for and respond to hazard events.